

REMARKS

Claims 1-57 and 59-62 are pending in the application. Of these claims, claims 14-19, 33, 34, and 51-55 were withdrawn from consideration as requested by Applicant in an amendment filed March 8, 2004. Claims 1-13, 20-32, 35-50, 56, 57, and 59-62 were rejected. Claims 6, 7, 13, 28, 29, 32, 43, 44, 50, and 58-62 are being cancelled. Claims 1, 8, 10, 11, 12, 23, 30, 37, 38, and 46 are being amended. Claims 63-66 are being added. No new matter is being introduced by way the amendments and new claims.

The substitute specification filed October 20, 2003 in a paragraph at page 7, line 26 through page 8, line 4 (originally filed specification at page 7, line 23 through page 8, line 4) is being amended. The amendments are being made relative to the amendments made to that same paragraph in the Amendment filed March 8, 2004. In that Amendment, page and line number citations to the above-amended paragraph were made only with respect to the specification as originally filed on August 8, 2001 and not to the substitute specification filed October 20, 2003. The amendments reflect subject matter originally filed in at least Figs. 1, 2, and 3. No new matter is being introduced by way of these amendments. The following two paragraphs relate to that same paragraph being amended.

In Part 2 of the Office Action at hand at page 2, the disclosure was objected to because of informalities relating to clarity of description regarding the frequency range of the low pass filter 6 in a paragraph on page 7, line 26 through page 8, line 4 of the substitute specification (page 7, line 23 through page 8, line 2 of the specification as originally filed) and as amended in the Amendment filed March 8, 2004. The paragraph is being amended hereinabove to more clearly describe the circuits and associated frequency responses of Figs. 1-3, 6 and 7 as originally filed. No new matter is being introduced by way of these amendments. Applicant thanks Examiner for pointing out the lack of clarity with regard to the paragraph being amended and respectfully believes that the objections should be withdrawn.

In Part 3 of the Office Action at hand at page 2, the amendment filed March 8, 2004 was objected to under 35 U.S.C. 132 because it is said to introduce new matter into the disclosure, specifically as related to the paragraph as now amended clarifies the description of the low pass filter amplifier 6 represented schematically in Figs. 1 and 2 and with frequency responses of Figs. 3, 6, and 7 as originally filed. Applicant believes that no new matter is being introduced

by way of the amendments being made to the specification hereinabove. Accordingly, Applicant respectfully submits the rejection under 35 U.S.C. § 132 should be withdrawn.

In Part 4 of the Office Action at hand, claims 13, 32, and 50 were rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. Claims 13, 32, and 50 are being cancelled herein. Accordingly, Applicant respectfully submits that the rejections of claims 13, 32, and 50 are now moot. Claims 13, 32 and 50 are being cancelled for purposes of expediting prosecution, and Applicant believes the subject matter of these claims continues to be covered by the remaining claims. Applicant reserves the right to claim the subject matter of the cancelled claims in a continuing application.

In Part 5 of the Office Action at hand, claims 1-13, 20-32, 35-50, 56, 57, and 59-62 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter the Applicant regards as the invention.

With regard to claims 1, 23, 37, and 38 as addressed in the Office Action, page 3, last paragraph, the term “passive circuit means” is being replaced by --a passive circuit--. In the embodiment of Fig. 2 as originally filed, a passive circuit including R3, R4, and C9 is connected between the transducer 1 and low frequency channel circuit 2 (see Fig. 1), which, in Fig. 2, includes J6 and other transistor elements, feedback capacitor C10, and two-pole, low pass filter feedback components C1, C2, C7, R12, and R12 that define the frequency characteristics of the active, low frequency channel circuit 2. In view of this amendment, Applicant respectfully submits that claims 1, 23, 37, and 38 should now be allowable under 35 U.S.C. 112, second paragraph.

Regarding claim 9 as addressed in the Office Action, page 4, first paragraph, the limitation “high impedance element external from the buffer to provide the output electrical characteristics of the transducer in at least one of the at least two filters” is described in the specification as originally filed at page 8, lines 17-21 and the substitute specification filed October 20, 2003, at page 8, lines 18-23. Specifically, the substitute specification, page 8, lines 18-23 recites:

The capacitor C4 on Fig. 2 corresponds to the capacitor 11 on Fig. 1. Its function is to establish on the input of the high-frequency filter amplifier 8 the input characteristics similar to those provided by the transducer 1 on the input of the low-frequency filter amplifier 6. To

achieve this, the characteristics of capacitor C4 should be similar to the characteristics of the transducer's capacitance, represented in Fig. 2 as C3. (emphasis added)

In the embodiment of Fig. 2, capacitor C4, which is a 1nF capacitor, approximates the transducer output capacitance, C3, which is approximately 1nF. Capacitor C4 is a high impedance element and, as indicated in Fig. 2, is deployed between the output from buffer U1 and input to a high frequency filter amplifier 8. Accordingly, in agreement with the specification as originally filed at page 8, line 21, Applicant respectfully submits that the term “characteristics” is the appropriate term and should not be changed to -- signal--, as noted in the Office Action at hand at page 4, first paragraph, last sentence.

For reasons just discussed with reference to claim 9, the rejection of claims 30 and 46 under 35 U.S.C. 112, second paragraph as stated in paragraphs 2 and 3 on page 4 of the Office Action at hand are also supported. In addition, Claim 30 is being amended to replace the term “approximating” with --having characteristics similar to--. Claim 46 is being amended for clarification purposes in a similar manner as claim 30.

Regarding claims 59-62 addressed in the Office Action at hand, page 4, paragraph 4, Applicant has cancelled these claims for purposes of expediting prosecution, and Applicant believes the subject matter of these claims continues to be covered by the remaining claims. Applicant reserves the right to claim the subject matter of the cancelled claims in a continuing application. Accordingly, the Applicant respectfully submits that the rejection of claims 59-62 under 35 U.S.C. 112, second paragraph are now moot.

Claims 1, 2, 4, 6, 22-26, 28, 35-41, and 43 were rejected under 35 U.S.C. 102(b) as being anticipated by Dunnegan (U.S. 5,714,687).

Claim 1 is being amended to include the limitations of claim 7 (“a buffer to isolate the inputs of said at least two filters from one another”). Independent claim 23 is being amended to include the limitations of now cancelled claim 29, which included similar limitations as claim 7. Independent claim 37 is being amended to include limitations similar to claim 7. Independent claim 38 is being amended to include the limitations of now cancelled claim 44, which included similar limitations as claim 7. Accordingly, Applicant respectfully submits that, since claim 7 was not rejected, independent claims 1, 23, 37 and 38 should now be allowed under 35 U.S.C. 102(b).

In view of the amendments described in the preceding paragraph, dependent claims 6-7, 28-29, and 43-44 are being cancelled.

Because dependent claims 2, 4, 6, 22, 24-26, 28, 35, 35, 39-41, and 43 depend from the independent claims, Applicant respectfully submits that these dependent claims should also be allowed under 35 U.S.C. 102(b).

New claim 63 includes the limitations of claims 1, 2, and 3 and should be in condition for allowance under 35 U.S.C. 102(b) since claim 3 was not rejected in Part 6 of the office action at hand. New independent claim 64 is a method claim corresponding to claim 63 and should be allowed for similar reasons.

New claim 65 includes the limitations of claims 1 and 5. Accordingly, since claim 5 was not rejected under 35 U.S.C. 102(b) in Part 6 of the office action at hand, Applicant respectfully submits that claim 65 should be in condition for allowance.

New independent claim 66 is a method claim including similar limitations as claim 65 and should be allowed for similar reasons.

CONCLUSION

In view of the above amendments and remarks, it is believed that all claims that will be pending after entry of the claim listing (claims 1-5, 8-12, 14-27, 30-31, 33-42, 45-49, 51-57, and 63-66) are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

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